



(51) International Patent Classification⁷:
H04L 25/02, H04B 7/005

(21) International Application Number:
PCT/FR2005/000872

(22) International Filing Date: 11 avril 2005 (11 04 2005)

(25) Filing Language: French

(26) Publication Language: French

(30) Priority Data:
04/03,845 13 April 2004 (13 04 2004) FR

(71) Applicant (for all designated States except US): CENTRAL
NATIONAL DE LA RECHERCHE SCIENTIFIQUE-CNRS
[FR/FR]; 3, rue Michel Ange, F-75794 Paris Cédex 16 (FR)

(72) Inventors; and

(75) Inventors/Applicants (for US only): FINK, Mathias
[FR/FR]; 16, rue Edouard Laferrière, F-92190 Meudon
(FR). LEROSEY, Geoffroy [FR/FR]; 101, rue du
Dessous des Berges, F-75013 Paris (FR). DERODE,
Arnaud [FR/FR]; 196, rue de Tolbiac, F-75013 Paris
(FR). DE ROSNY, Julien [FR/FR]; 154, rue de
Charenton, F-75012 Paris (FR). TOURIN, Arnaud
[FR/FR]; 65, rue Ernest Renan, F-92310 Sevres (FR)

(74) Agents: BURBAUD, Eric et al; Cabinet Plasseraud,
65/67, rue de la Victoire, F-75440 Paris Cedex 09 (FR).

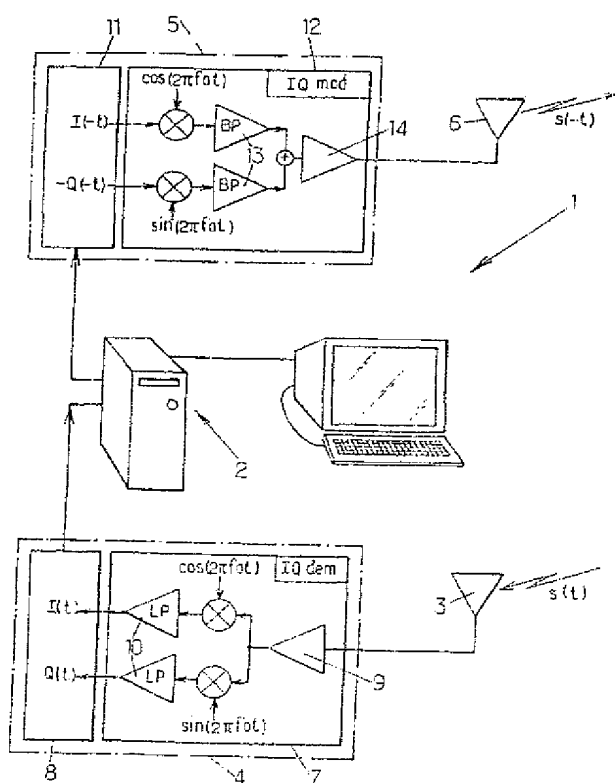
(81) Designated states (unless otherwise indicated for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,

[continued on next page]

As printed

(54) Title: METHOD FOR TEMPORAL INVERSION OF A WAVE

(54) Titre : PROCEDE POUR INVERSER TEMPORELLEMENT UNE ONDE



(57) Abstract: According to the invention, a wave, corresponding to a signal $s(t)$ may be temporally inverted by application of a first transformation to lower the central frequency thereof to produce a first set of transformed signals $K_i(t)$ then a second set of transformed signals $K_i'(t)$ is produced, representing the temporal inversion signal $s(-t)$ and a third transformation is applied to said second set to generate the temporally-inverted signal $s(-t)$

(57) Abrégé : Pour inverser temporellement une onde correspondant à un signal $s(t)$, on lui applique une première transformation pour abaisser sa fréquence centrale en produisant un premier ensemble de signaux transformés $K_i(t)$ puis on produit un deuxième ensemble de signaux transformés $K_i'(t)$ représentatif du signal d'inversion temporel $s(-t)$ et on applique à ce deuxième ensemble une troisième transformation qui génère le signal d'inversion temporel $s(-t)$

JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

- (84) **Designated states** (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Declaration under Rule 4.17:

- of inventorship (Rule 4.17(iv)) for the following designation US

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette